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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,097	02/26/2002	Choe Min-Cheol	2693-114	2669

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EXAMINER

HEWITT, JAMES M

ART UNIT PAPER NUMBER

3679

DATE MAILED: 07/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/082,097

Applicant(s)

MIN-CHEOL, CHOE

Examiner

James M Hewitt

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 April 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Drawings

The corrected or substitute drawings were received on 4/8/03. These drawings are acceptable.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hama et al (US 5,692,784) in view of Knohl (US 2,712,262), and further in view of Guest (US 4,958,858).

With reference to Figure 6, Hama et al discloses (as prior art) a cartridge for fixing a collector (110) comprising: a main body (106); a cap (108) fixed (by caulking) to the main body (106); and a metallic hook (112) inserted and fixed (in groove 106a) between the main body (106) and the cap (108). In Figure 6, the hook is positioned between the rightmost surface of cap (108) and an inner surface of main body (106). Hama et al fails to teach that the metallic hook includes inclined elastic flaps arranged around the hook body, and a plurality of horizontal elastic flaps which are formed between the inclined flaps. In Figures 4-8, Knohl teaches a retainer (10a) for centering

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and preventing tilting of a tube or pipe. The retainer is formed of sheet metal having a plurality of inclined elastic flaps (14a) and three horizontal elastic flaps (16a) formed between the inclined flaps around the retainer body. Refer to Attachment A (provided in the office action mailed 1/9/03), which shows the plurality of horizontal flaps between the inclined flaps. Given that applicant has used the term "elastic" to describe his metallic flaps, and based on the following dictionary definition of elastic, Knohl's sheet metal flaps are considered to be elastic flaps in that sheet metal is flexible and can easily resume its original shape after being bent (stretched or deformed). e-las-tic (î-làs'tîk) *adjective* 1. a. Easily resuming original shape after being stretched or expanded; flexible. See synonyms at flexible. b. Springy; rebounding.¹ It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the hook (112) of Hama et al with the retainer (12a) as taught by Knohl in order to center and prevent tilting of a tube or conduit inserted and fixed to tube joint (100) so that fluid passing through the conduit and joint is delivered more efficiently and effectively.

It should be noted that metal is not normally described as "elastic", but given the fact that applicant describes his metallic flaps as elastic, and based on the above definition of the term, the examiner has considered Knohl's flaps to be elastic. Applicant has not stated that the metal used for his hook is a metal that is uniquely elastic, and the examiner considers applicant to be using the term in more of a broad or general

¹ *The American Heritage® Dictionary of the English Language, Third Edition* copyright © 1992 by Houghton Mifflin Company. Electronic version licensed from INSO Corporation; further reproduction and distribution restricted in accordance with the Copyright Law of the United States. All rights reserved.

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sense, taking a meaning more close to the term "flexible", and not in the sense of how a rubber band, for example, is considered elastic.

Hama et al also fails to teach that his cap (108) is adhered to his main body (106) by high frequency waves. Hama et al secures the cap to his main body by caulking. Guest teaches a tube coupling, similar to Hama et al and the claimed invention. Guest teaches adhering insert collar (14) to body (11) by ultrasonic welding (high frequency waves). In view of Guest's teaching, it would have been obvious to one having ordinary skill in the art at the time the invention was made to secure Hama's cap to his main body by ultrasonic welding in order to create a more durable, long-lasting connection.

With respect to claim 2, wherein said plurality of horizontal elastic flaps is three (see Attachment A).

With respect to claim 3, wherein said plurality of horizontal elastic flaps is four (see Attachment A).

Response to Arguments

Applicant's arguments filed 4/8/03 have been fully considered but they are not persuasive.

Applicant asserts "Neither Hama nor Knohl teach, disclose, or suggest a hook inserted and held *between* a main body and a cap..." The Examiner disagrees. From Figure 8, the hook (112) is disposed in groove (106a) of main body (106). From Figure 6, the hook (112) is shown to be disposed axially (left to right direction) between a rightmost surface or edge of cap (108) and a given inner surface of main body (106).

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Regarding the added limitation "wherein the cap is adhered to the main body by high frequency waves", refer to the new rejection in view of Guest as described above. And contrary to Applicant's assertion "Caulking doesn't adhere pieces together, it merely fills gaps in seams", Hama states in column 1 lines 24-26, "The stopper 108 is fixed in the left end section of the guide cylinder section (106) by caulking." Hama thus employs caulk to adhere or fix stopper (108) to section (106). Also refer to Figure 6.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to James M Hewitt whose telephone number is 703-305-0552. The examiner can normally be reached on M-F, 930am-600pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on 703-308-1159. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

jmh

jmh

July 16, 2003


Lynne H. Browne
Supervisory Patent Examiner
Technology Center 3620